



Advanced Distributed Learning

Alexandria ★ Orlando ★ Wisconsin

What is the ADL Co-Lab ?

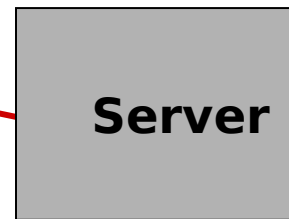
**An open, collaborative
environment for sharing
learning technology research,
development, implementation
and evaluations.**



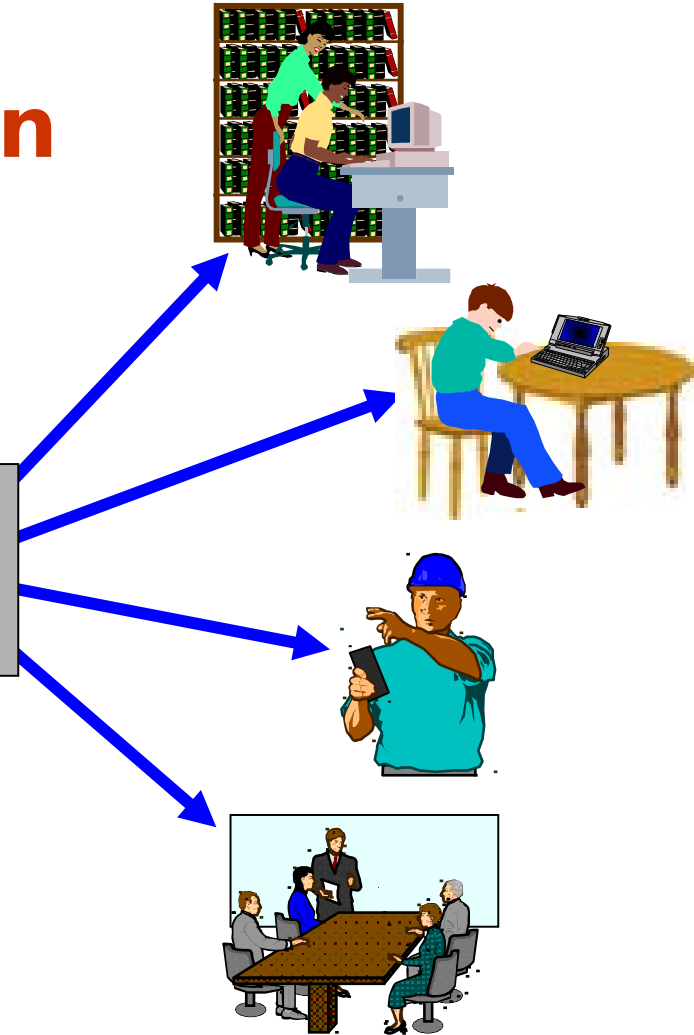
The "A" in ADL



***Shareable Content
Objects from across
the World Wide Web***

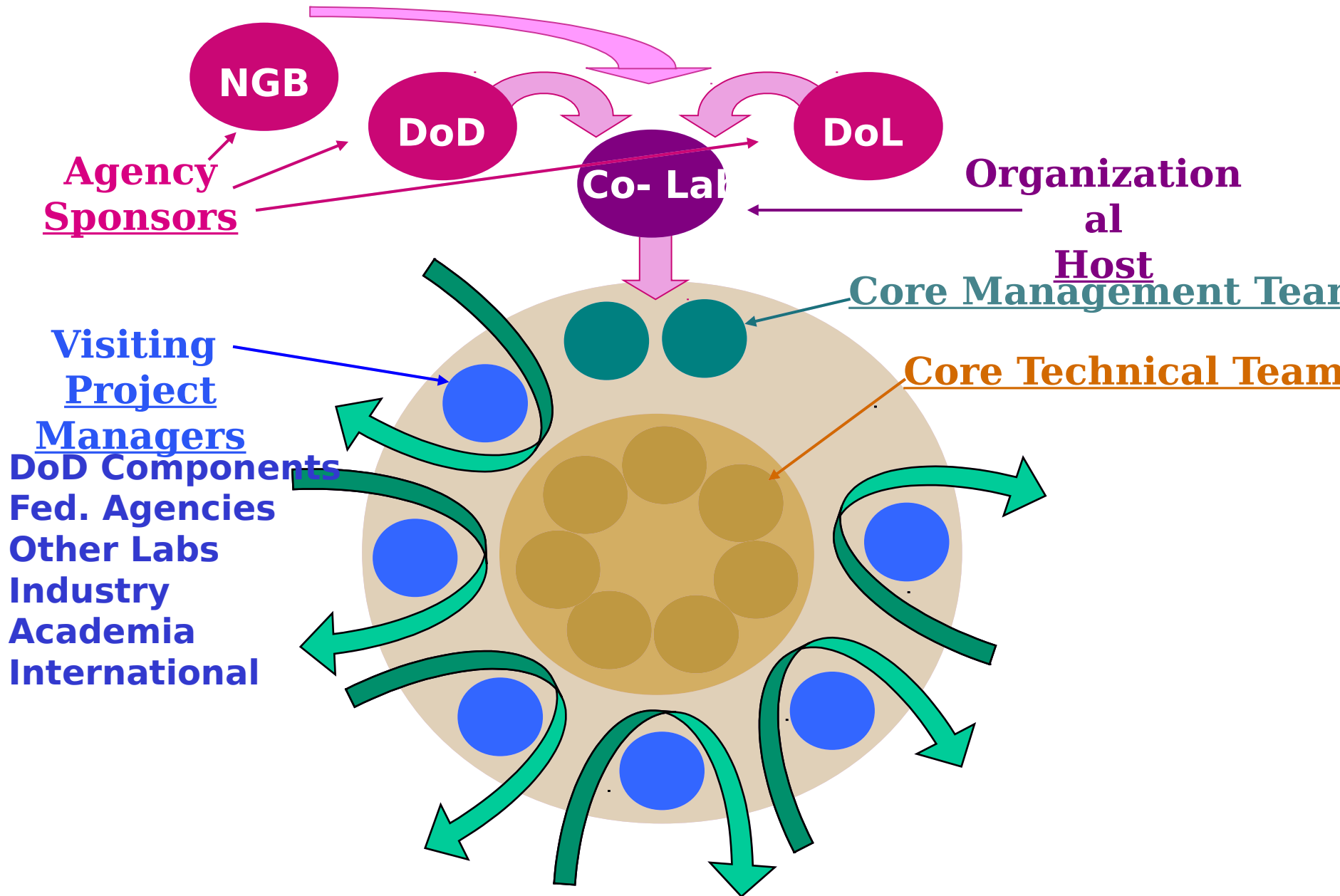


***Assembled in
real-time, on-
demand***



***To provide learning
and assistance
anytime, anywhere***

Collaborative Process



SCORM

**Sharable Content
Object Reference Model**

Web-based Learning Content Issues

What problems are we are trying to solve?

- Can't move a course from one Learning Management System (server) to another
- Can't reuse content "chunks" across different LMS systems
- Can't create searchable learning content or media repositories across different LMS environments
(just for starters...)

So what to do?



ADL Took Action

**Since industry and consortia weren't converging,
ADL took a leadership role:**

- Building consensus among users, developers and industry
- Acting as a catalyst to bring together key players
- Forging alliances in strategic technical areas
- Accelerating the pace of technology adoption for learning anytime, anywhere

“enlightened self-interest” at work



SCORM

CONTENT AGGREGATION MODEL

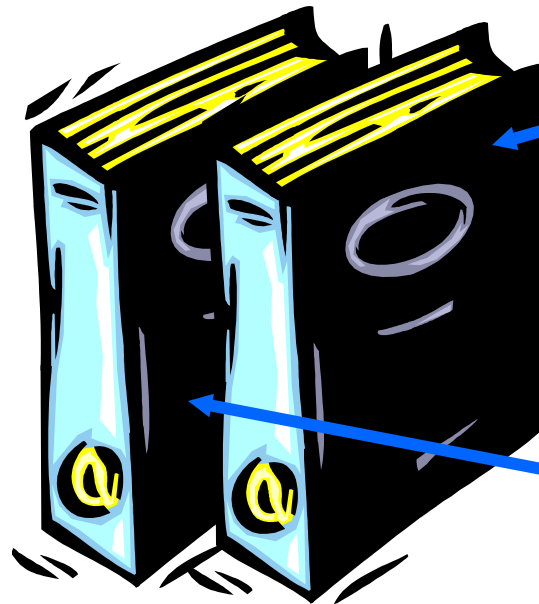


Course
Structure
Format -
Derived from
AICC

Meta-data
dictionary
From IEEE

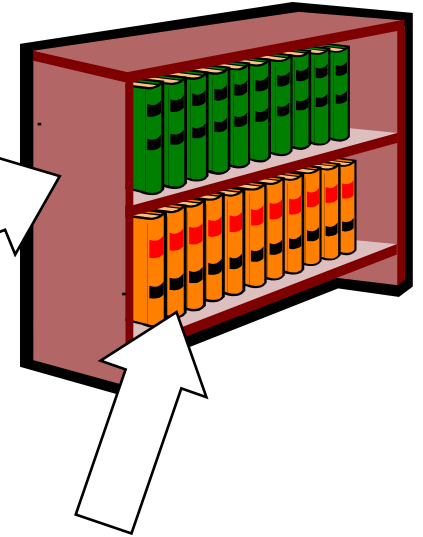
Meta-data
XML Binding
Best Practice
From IMS

RUN-TIME ENVIRONMENT



Content to
LMS API
From AICC

Content to
LMS data
model
From AICC



The ADL SCORM - What is it really?

- Integration of industry specifications from
 - AICC
 - IMS
 - ARIANDNE
 - IEEE
- Provides a unified learning content model
- Defines a standardized web “run-time” environment
- Is the first step on the path to defining a true learning architecture



AICC + IEEE + IMS + ADL = SCORM

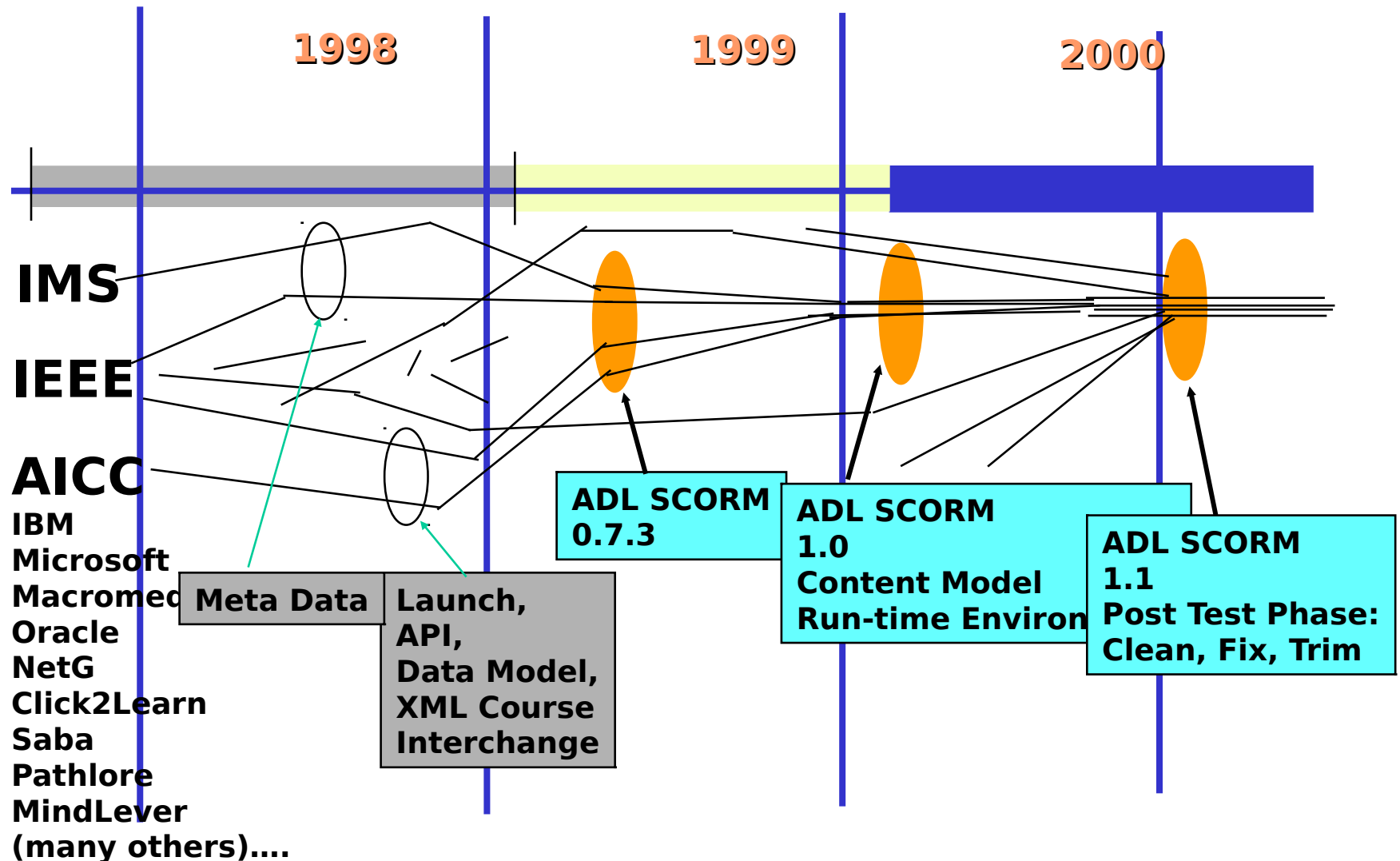
*IEEE Meetings
Late 1999*



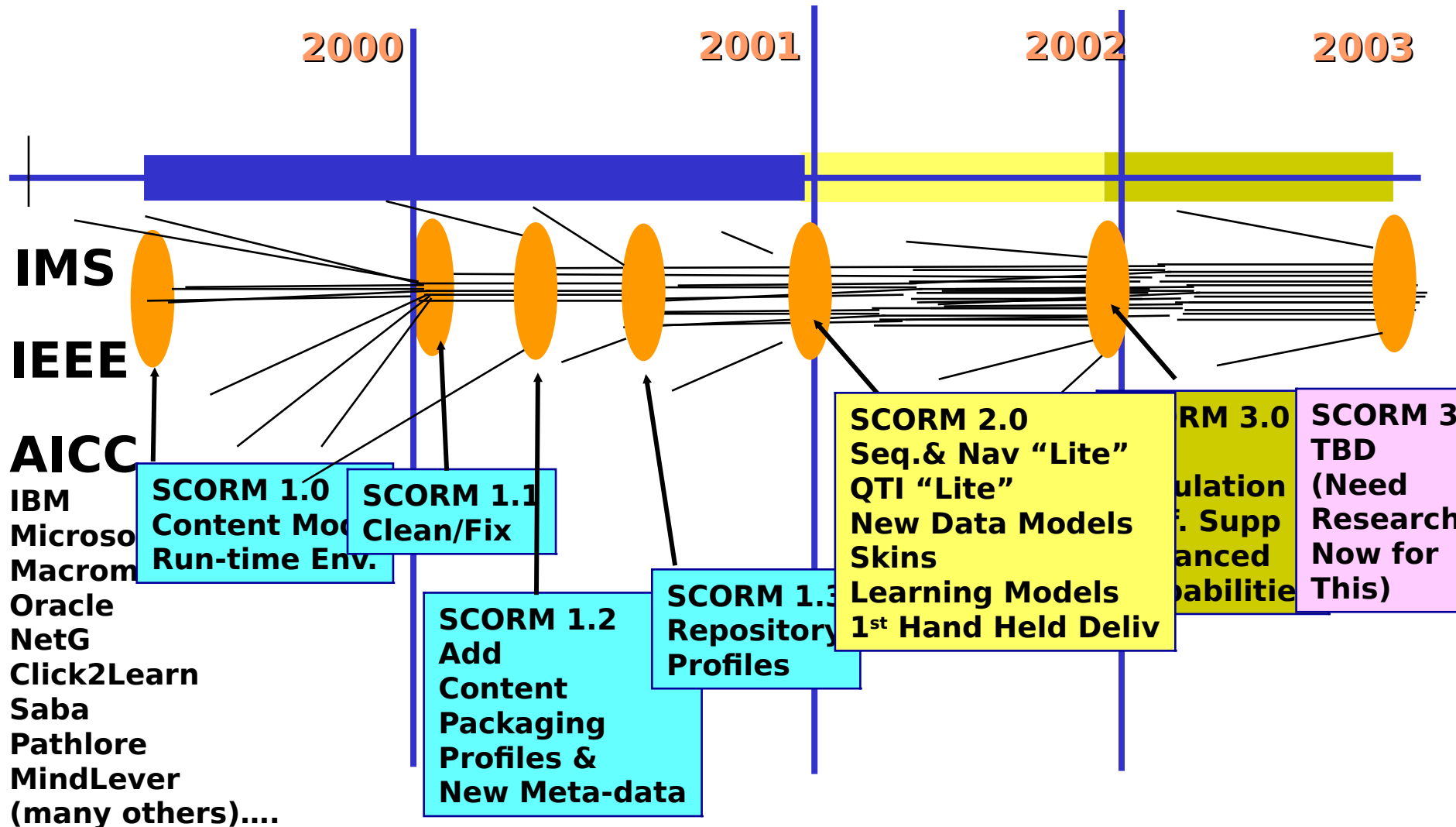
*IMS Meetings
Early 2000*



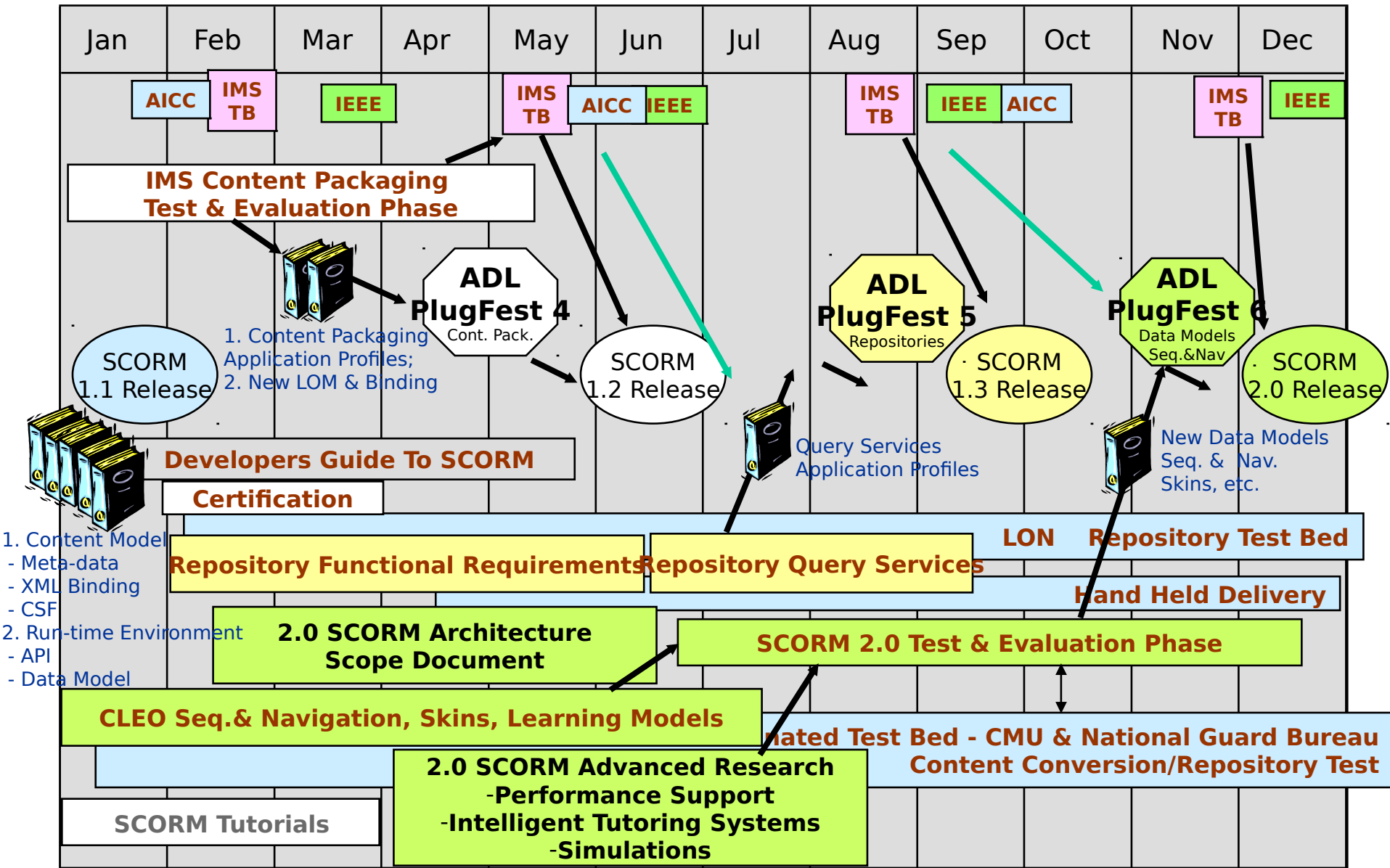
ADL Progress To Date



ADL Future Versions of SCORM



ADL 2001



CLEO



Customized Learning Experiences Online

**Carnegie Mellon
Online**

IEEE-ISTO



Microsoft

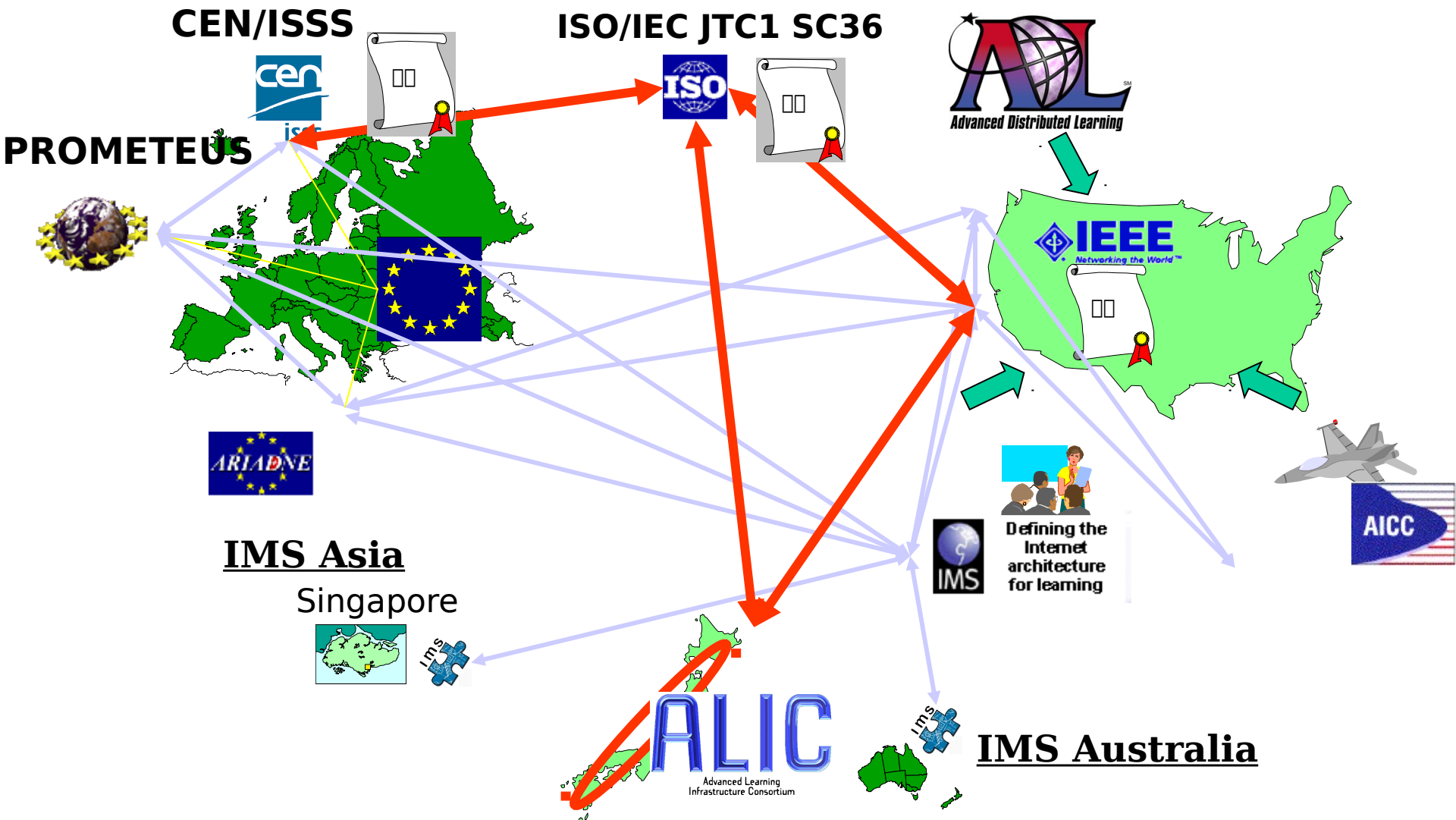


IBM Mindspan Solutions

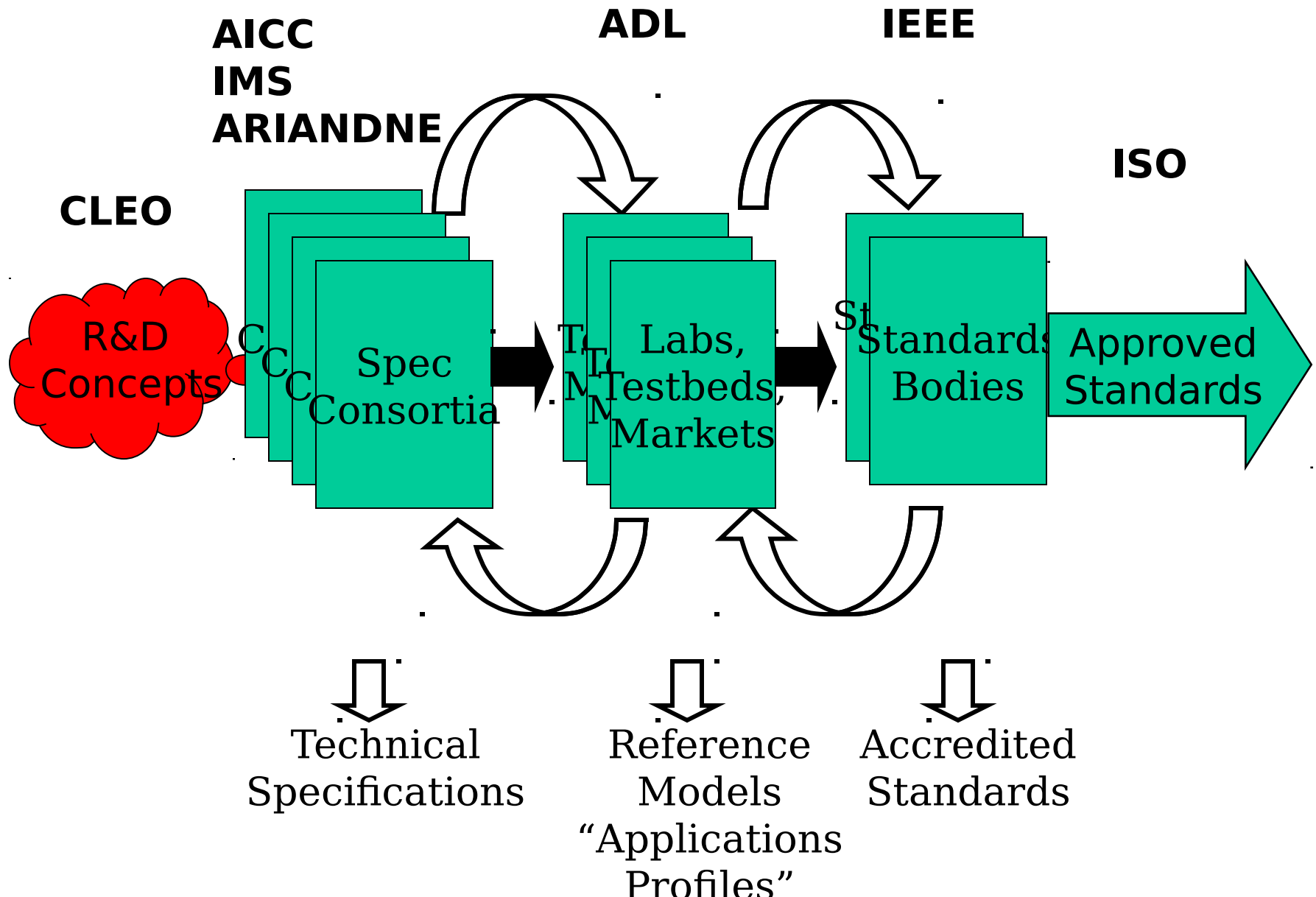


CISCO SYSTEMS

Resulting in a World Wide Community for Learning Technology



A Model for Standards Evolution





May 30 - June 1, 2001

Participants at Plugfest 4?



Learning Management Systems/Content Developers

Avilar	Blackboard	Centra	Click2Learn	Docent	General Dynamics
Global Learning Systems	KnowledgePlanet	Meridian KSI	Microsoft Corporation	Oracle Corporation	Pathlore Software
Prometheus	Saba	TASC	THINQ	WBT Systems	WebCT
Boeing	Computer Sciences Corporation	Defense Acquisition University	Department of National Defence (Canada)	EER Systems	ElementK
Jardon and Howard Technologies	Learning Objects Network	LSI	Mantech	Mentergy	National Guard Bureau
(NAWCTSD)	NETg	NETPDTC	Smartforce	NYUonline	Online-learning.com
OpenVes	Platinum EDU	Stewart Consulting	TutorTek.com	XanEdu	

New PlugFest 4 SCORM Content for Demos/Web

Centra Software Inc	<i>State Capital Test</i>
X HLP technologies asa	<i>MS Excel 2000</i>
NETg, Smartforce	<i>SmartForce & NETg collaboration</i>
Department of National Defence	<i>Combat Net Radio</i>
National Guard	<i>DTTP-Site Operations Training DL Curriculum</i>
LSI	<i>Strike Fighter Online</i>
Platinum EDU Ltd.	<i>Natural Resources of India</i>
NETg	<i>MS SQL Server 7.0</i>
XanEdu	<i>Online course pack - Internet Strategy</i>

PlugFest 4 - Additional Content Participants

NAWCTSD	<i>Sample course from authoring instructional material</i>
Boxer Technologies	<i>MS Office Application training</i>
NETPDTC	<i>Fire Control Radar Fundamentals, Introduction to Radar Safety</i>
Smartforce	<i>web based content</i>
Defense Acquisition University	<i>LOG101 - Acquisition Logistics Fundamentals legacy conversion</i>
ElementK	<i>Self-study tutorials (Manifest, Metadata)</i>
NYU Online	<i>Sample SCORM content created with iAuthor</i>
Click2Learn	<i>ToolBook SCORM compatibility test for LMS (SCORM 1.2)</i>
VuCom	<i>Course consisting of 59 SCOs for Pharmaceutical Testing</i>

SCORM Content (2)

TutorTek.com	<i>Information Technology Tutor</i>
Unitech	<i>Heritage and History, Policy and Doctrine, Roles Missions and Capabilities</i>
6 Authoring Tool Providers:	Macromedia, MaxIT Corporation, NS Software Services, Trivantis, Click2Learn, Saba.

What has happen since Plugfest 1?

Plugfest 1 (June 00) Plugfest 4 (June 01)

SCORM 1.0 SCORM 1.1, Draft Cont Packaging

Test Software 1.0 Test Software 1.1

12 LMSs, 18 Content Samples 18 LMSs, 22 Courses/SCOs, 4 tools

No “off the shelf” tools Macromedia, Click2Learn, others ?

Confusion on SCORM conformance Confusion on SCORM certification

No overarching DoD SCORM policy Draft DoD Directive

16 SCORM Prototypes 26 SCORM Prototypes

No large contracts requiring SCORM Several RFPs/contracts

- **(eArmyU, NLN, IRS, DAU, USDA,etc)**



Importance of SCORM?

Current LMS Future LMS

- Army (ATSC/TRADOC) Click2Learn ? Under study
- Navy (CNET) THINQ
- Air Force Plateau, Meridian KSI ? Under study
- Marines Self Developed June announcement
- DAU Self Developed (OSS) June announcement
- USDA Grad School None ? Under study
- IRS None ? Under study
- CDC Self Developed ? Under study
- NDU Blackboard ? Under study



What ADL Has Accomplished So Far?

- **Co- Developed Version 1.0 & 1.1 -- Common ADL Specifications**
- **Established the ADL Co- Laboratories**
- **Expanded the ADL Co- Laboratories - Provided Incentives**
- **Sponsored development of ADL Prototypes**
- **Hosted 4 ADL “Plugfests” with Military, Federal, Academic and private sector partners.**



ADL Co-Lab - Next Steps

- **Update of SCORM specifications**
- **Evaluate and test**
- **Develop Compliance Testing Software**
- **Update ADL Guidelines**
- **Conduct tutorials demonstrations**
- **Develop Certification Procedures**
- **ADL/JPTI Conference, Sept 26-27 2001, Alexandria VA**



Questions?



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www.adlnet.org

